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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,043	11/19/2003	Kunio Minagawa	3408.68744	7451

7590 12/12/2006
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EXAMINER

BELL, CORY C

ART UNIT PAPER NUMBER

2164

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,043

Applicant(s)

MINAGAWA, KUNIO

Examiner

Cory C. Bell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/19/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-3, 5-9, and 11-14 have been examined.
2. Claims 4 and 10 have been canceled.

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5-9, and 11-14 under 35 USC 103(a) have been considered but are moot in view of the new ground(s) of rejection.

The previous rejections of the claims under 35 USC 101 and 112 have been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-9, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6775686 filed August 30, 2000, known hereafter as Bellon in view of US 5454108 filed January 26, 1994, known hereafter as Devarakonda or US 5978802 ^{FILED} ~~4238~~ May 5, 1997, known hereafter as Hurvig.

4. Claim 1 is rejected for the following reasons:

a storage unit having a data area for storing files to be transferred between
said networks in file units, on a file-by-file basis,(Bellon Col 2 lines 27-49) and a file management table to indicate the access status to said file; and

a data management unit for performing control between file

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systems for each one of said networks(Bellon Figure 1 items 110 and 120 corresponding global coherency traffic managers, see figure 3) using said file management table, and

wherein said data management unit comprises:

a first data management unit connected to one network of said plurality of

independent networks and for accessing said data area; (Bellon Figure 1 item 110) and

a second data management unit connected to another network of said

plurality of independent networks and for accessing said data area;(Bellon Figure 1 item 120)

wherein said first and second data management units set an indication to

indicate that a file is in use(Bellon Col 4 lines 20-28 teach locking a file which is an indication it is in use) in said file management table before reading or writing said

file in said data area, (Bellon Figure 2) and reset said in use indication in said file management table after reading or writing said file in said data area to control file transfer

between said networks. (This feature is inherent to Bellon, a locked file must be released in order for other systems to have access to a file, and the file cannot be released until after the read of write transaction has been completed as it would not solve the coherency problems it was implemented to remove.)

Bellon teaches the underlined limitations above, but fails to expressly disclose the use of a file management table to store the file access information, and the indication of it access status. This is taught however in both Devarakonda figure 6B, and Hurving Figure 4 item 220. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to include this feature in Bellon do the advantages of storing the information in an organized structure and

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the systems of Devarakonda and Hurving are analogous to the “arbitration and content resolution techniques for managing coherency traffic known to those of skill in the art.”

5. Claim 2 is rejected for the following reasons:

The inter-network relay storage apparatus according to Claim 1, wherein said data management unit is disposed in a pair of network servers which are connected to said networks respectively.(Bellon Figure 1 items 110 and 120)

6. Claim 3 is rejected for the following reasons:

3. (Original) The inter-network relay storage apparatus according to

Claim 1, further comprising a pair of network connection servers having said data

management unit respectively, and are connected to said networks respectively, and

communicate data via said networks. (Bellon Figure 1 items 110, 120, 150, and 160)

7. Claim 5 is rejected for the following reasons:

The inter-network relay storage

apparatus according to Claim 1 wherein said data area of said storage unit comprises:

a first area which is written by one file system of said plurality of file

systems and read by another file system, system of the plurality of file systems; and

a second area which is written by said another file system and read by

said one file system. (Bellon storage elements 100 are both read and written to by systems

from both networks.)

6. Claim 6 is rejected for the following reasons:

a network control section for connecting with said network for

communication;(Figure 3 item 320) and

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said data management unit. (Figure 3 item 360)

8. Claim 7 is rejected for the following reasons:

performing the exclusive control between file systems using a file
management table in a storage apparatus to indicate the access status to a file in the
storage apparatus by said file system for one network of said plurality of
independent network environments; and
writing and reading said file in file units, on a file-by-file basis,
to/from a data area in said storage apparatus during said control, (See claim 1 rejection) and
relaying data between said one network and another network of said plurality of independent
network environments by said file system for said another network, (This is done by the
processing elements that access the data in the shared storage)

wherein said performing the control step comprises:
a step of setting an indication to show that a file is in use in said file
management table before reading or writing said file in said data area by one of a first data
management unit connected to said one network of said plurality of independent
networks and for accessing said data area and a second data management unit connected
to said another network of said plurality of independent networks and for accessing said
data area; and
a step of resetting said in use indication in said file management table after
reading or writing said file in said data area by one of said first and second data
management units. (see claim 1 rejection)

9. Claim 8 is rejected for the following reasons:

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See claim 2 rejection.

10. Claim 9 is rejected for the following reasons:

See Claims 1 and 3 rejections.

11. Claim 11 is rejected for the following reasons:

See Claim 5 rejection.

12. Claim 12 is rejected for the following reasons:

See Claim 6 rejection

13. Claim 13 is rejected for the following reasons:

The inter-network relay storage apparatus according to
Claim 1, wherein said data management table comprises a file use control table for
storing use indication flags of each file for each file system.(Devarakonda Figure 6D “LCS”
or Hurving Figure 4 item 220) It would have been obvious to one of ordinary skill in the art at
the time of the invention to include this feature in Bellon do the advantages of storing the
information in an organized structure and the systems of Devarakonda and Hurving are
analogous to the “arbitration and content resolution techniques for managing coherency traffic
known to those of skill in the art.”

14. Claim 14 is rejected for the following reasons:

See Claim 13 rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this
Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SAM RIMELL
PRIMARY EXAMINER